AMENDMENT - IN THE CLAIMS

Claim 1 (withdrawn). An oligodeoxynucleotide (ODN) library comprising a plurality of oligodeoxynucleotides of specific length, at least one of the oligodeoxynucleotides comprising said ODN library being capable of interacting with a target genomic DNA, mRNA or protein when inserted into a DNA expression vector with the specific calling sequence for said oligodeoxynucleotide being embedded in said expression vector capable, said expression vector being capable of being introduced into a target cell to produce at least one of said oligodeoxynucleotides when induced by exposure to a chemical agent for interacting with genomic DNA, mRNA or protein with observable result.

Claim 2 (withdrawn). A process for identifying and isolating an oligodeoxynucleotide comprising the steps of:

utilizing the ODN library of claim 1 to express a plurality of copies of at least one said oligodeoxynucleotide in the target cell;

growing the target cells into a colony of cells;

dividing the colony into paired colonies;

exposing one of the paired colonies to a chemical agent capable of inducing expression of said at least one oligodeoxynucleotide by the cells of the exposed colony, causing the expressed oligodoxynucleotide to interact with genomic DNA, mRNA or a protein to alter expression of a gene;

observing the result in said exposed cells; and

sequencing the DNA of the cells of the unexposed colony to identify the sequence of the library oligodeoxynucelotide that caused alteration of the gene.

Claim 3 (withdrawn). The method of claim 2 wherein said cells are bacteria strain DH5αPro.

Claim 4 (previously presented). A bacterial single-stranded DNA (ssDNA) expression vector comprising:

(a) an inducible bacterial promoter;

(b) a genetic sequence encoding a fully active reverse transcriptase (RT), located 3' of the inducible bacterial promoter; and

(c) a ssDNA expression cassette for producing a ssDNA inside a cell, located 3' to the RT sequence and comprising in 5' to 3' order:

(i) a set of inverted tandem (IT) repeats for formation of a stem-loop structure,

(ii) a cloning site for cloning a sequence of interest (SOI), and

(iii) a primer binding site (PBS) sequence sufficient for initiation of reverse transcription inside a bacterial cell.

Claim 5 (previously presented). The bacterial ssDNA expression vector of claim 4 comprising a PBS having the sequence 5'-TGGTGCGTCCGAG-3' [Seq. ID No. 3].

Claim 6 (previously presented). A cell having the vector of claim 4 transformed therein.

Claim 7 (previously presented). The vector of claim 4 further comprising a DNA enzyme sequence cloned into the cloning site of the vector, wherein the DNA enzyme sequence comprises a DNA enzyme catalytic domain flanked by target-binding domains each ranging in size from 3 to about 25 nucleotides in length.

Claim 8 (previously presented). The vector of claim 7 wherein the target-binding domains are targeted to bacterial FtsZ sequences.

Claim 9 (previously presented). The vector of claim 8 wherein the DNA enzyme sequence comprises SEQ. ID NO: 6.

Claim 10 (currently amended). The vector of claim 7 wherein the DNA enzyme ~~catalytic~~ sequence domain comprises ~~GGCTAGCTACAACGA.~~ 5'-N_1-GGCTAGCTA CAACGA -N_2-3' [Seq. ID No. 7] where N_1 and N_2 represent any sequence of nucleotides ranging in size from about seven to about ten nucleotides.

Claim 11 (previously presented). A cell having the vector of claim 7 transformed therein.

Claim 12 (withdrawn). A single-stranded DNA enzyme comprising a 15 nucleotide catalytic domain flanked by random RNA target-binding domains of between about 7 and about 10 nucleotides each.

Claim 13 (withdrawn). The single-stranded DNA enzyme of claim 12 wherein said catalytic domain comprises the sequence 5'-N_1-GGCTAGCTACAACGA-N_2-3' [Seq. ID No. 7], where N_1 and N_2 represent any sequence of nucleotides ranging in size from about seven to about ten nucleotides that target a specific RNA.

Claim 14 (withdrawn). A plasmid having the DNA enzyme of claim 12 contained therein.

Claim 15 (withdrawn). A cell having the plasmid of claim 14 transformed therein.

Claim 16 (previously presented). The bacterial ssDNA expression vector of claim 5 having the genetic composition of plasmid pssXGb.

Claim 17 (previously presented). The bacterial ssDNA expression vector of claim 4, further comprising the sequence of interest, CYGX080103, having SEQ ID NO: 13 or a fragment thereof.

Claim 18 (previously presented). A ssDNA as expressed by the bacterial ssDNA expression vector of claim 8.

Claim 19 (previously presented). A ssDNA as expressed by the bacterial ssDNA expression vector of claim 17.

Claim 20 (previously presented). A composition comprising the vector of claim 4 wherein a sequence of interest is cloned into the cloning site designed to target a bacterial RNA involved in the regulating bacterial growth, killing the bacterial cell, or regulating the synthesis or secretion of bacterial toxin, and a carrier.

Claim 21 (previously presented). A composition comprising the vector of claim 7 wherein a sequence of interest is cloned into the cloning site designed to target a bacterial RNA involved in regulating bacterial growth, killing the bacterial cell, or regulating the synthesis or secretion of bacterial toxin, and a carrier.

Claim 22 (previously presented). A composition comprising the vector of claim 8, a ssDNA as expressed by the vector of claim 8, or a combination thereof and a carrier.

Claim 23 (previously presented). A composition comprising the vector of claim 17, a ssDNA as expressed by the vector of claim 17, or a combination thereof and a carrier.

Claim 24 (previously presented). A composition comprising the vector of claim 16 and a carrier.

Claim 25 (previously presented). A method for treating a bacterial infection using the composition of claim 20.

Claim 26 (previously presented). A method for treating a bacterial infection using the composition of claim 21.